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UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA – SAN JOSE DIVISION

TWILIO, INC.,	)	
	)	Case No. 5:16-cv-6925-LHK
Plaintiff,	)	
v.	)	
	)	<b>DEFENDANT TELESIGN</b>
TELESIGN CORPORATION,	)	<b>CORPORATION'S NOTICE OF MOTION</b>
	)	<b>AND MOTION TO DISMISS;</b>
Defendant.	)	<b>MEMORANDUM OF POINTS AND</b>
	)	<b>AUTHORITIES IN SUPPORT THEREOF</b>
	)	
	)	Date: March 30, 2017
	)	Time: 1:30 p.m.
	)	Judge: Hon. Lucy H. Koh
	)	Courtroom: 8, 4th Floor
	)	
	)	[Filed concurrently herewith: [Proposed] Order]
	)	
	)	

All emphasis (italics, bolding, underlining, etc.) in quotations in this brief has been added unless otherwise indicated.

**NOTICE OF MOTION AND MOTION**

TO THE HONORABLE COURT, ALL PARTIES, AND THEIR ATTORNEYS OF RECORD:

PLEASE TAKE NOTICE that on March 30, 2017, at 1:30 p.m., or as soon thereafter as the matter may be heard, in Courtroom 8, United States Courthouse, 280 South 1st Street, San Jose, California 95113, Defendant TeleSign Corporation (“TeleSign”) will and hereby does move the Court for an order dismissing with prejudice Plaintiff Twilio, Inc.’s (“Twilio” or “Plaintiff”) complaint (ECF No. 1).

This motion is made pursuant to Federal Rule of Civil Procedure 12(b)(6) and is based on the following ground: the asserted patents are invalid under 35 U.S.C. § 101 for claiming patent-ineligible subject matter.

This motion is based on this Notice of Motion and the Memorandum of Points and Authorities filed concurrently herewith, the pleadings and documents on file in this case, argument of counsel, and such other evidence as may be presented at the hearing on this motion.

**ISSUE TO BE DECIDED**

Whether the complaint should be dismissed under Fed. R. Civ. P. 12(b)(6) because, even if the allegations of the complaint are taken as true, no cause of action exists because the claims of the asserted patents are invalid under 35 U.S.C. § 101?

Dated: January 25, 2017

SHOOK, HARDY & BACON L.L.P.

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**MEMORANDUM OF POINTS AND AUTHORITIES**

This is a patent-infringement case. Twilio asserts that TeleSign infringes seven communications-related patents, which Twilio categorizes into four families. These patents, however, are invalid because their claims encompass patent-ineligible subject matter in violation of 35 U.S.C. § 101. Because this is a legal conclusion that turns on the content of the patents, it is ripe to be determined on the pleadings in this case, given that (1) the parties do not dispute the basic character of the inventions, (2) the scope of the claims is so broad, and (3) claim construction is unnecessary because there are no plausible constructions of any terms that would limit the scope of the claims to patent-eligible subject matter.

The unjustifiably large preemptive footprint of the patents favors a finding of invalidity. Preemption “undergirds” the Supreme Court’s Section 101 analysis—using generic computer implementations to monopolize abstract ideas.<sup>1</sup> The claims, informed by the specifications, purport to have enormous scope. Instead of specifically disclosing patent-eligible processes and limiting the claims to them, the patents persistently refer to being able to use “any suitable [fill in the blank]” to perform or be used in performing a task; and even that is said to only be *preferable*. The phrase “any suitable” is used approximately 274 times and a variation of “preferabl\*” is used 940 times across the seven patents, indicating these patents are not limited to an inventive concept and are invalid.<sup>2</sup> Any apparent constraints in the claims are undone by explanations in the specifications.

Twilio’s own complaint demonstrates the asserted breadth of its patents and concedes that the four families are respectively directed to four abstract ideas: “detecting fraudulent account activity”; “the selection of the best routing carrier for transmitting messages”; “the selection of a communication provider for transmitting messages”; and “the concept of initiating and controlling a

<sup>1</sup> *Alice Corp. Pty. Ltd. v. CLS Bank Int’l*, 134 S. Ct. 2347, 2358 (2014).

<sup>2</sup> *See Cloud Satchel, LLC v. Amazon.com, Inc.*, 76 F. Supp. 3d 553, 562-64 (D. Del. 2014) (invalidating patent where “Plaintiff is unable to meaningfully address the fact that the specification unambiguously states that the portable electronic reference transport device may be any ‘suitable’ portable computer” and “the electronic document reference may appear in ‘any suitable format’”), *aff’d mem.*, 626 Fed. App’x 1010 (Fed. Cir. 2015), *cert. denied*, 136 S. Ct. 1723, 194 L. Ed. 2d 812, 2016 WL 1059941 (Apr. 25, 2016).

voice, push, or SMS message.”<sup>3</sup> These admissions simplify the Court’s analysis because the basic character of the inventions is not disputed.

None of the claims purports to improve the functioning of a computer itself. The claims are not directed even to software, let alone hardware. In fact, performing the methods “can be” (but need not be) done using a computer or using a computer-readable medium, which is generally described as an “alternative” embodiment, not a preferred one (with any mentioned hardware being generic).<sup>4</sup> As opposed to solving a problem rooted in technology or that has arisen because of the Internet, these patents describe merely using the Internet in its customary way to perform conventional activity. Twilio cannot identify any unconventional aspects of the claims in view of the exceedingly broad nature of the patent specifications.

## **I. Background**

### **A. The Parties**

Plaintiff Twilio is a Delaware corporation and “a cloud communications company that enables developers to build and manage applications.”<sup>5</sup> Defendant TeleSign is a California corporation that offers a number of software products accused of infringing seven patents owned by Twilio (“asserted patents”).<sup>6</sup> The seven accused products are Smart Verify, Auto Verify, SMS Verify, Voice Verify, Push Verify, Score, and Phone ID.<sup>7</sup>

### **B. The Asserted Patent Families**

The Complaint describes the seven asserted patents as falling within four patent families and further describes the concepts to which each family is directed:

- The Score Family (the ‘962 patent and the ‘833 patent) is “directed towards detecting fraudulent account activity.”

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<sup>3</sup> Compl. ¶ 36.

<sup>4</sup> *See, e.g.*, ’051 pat. at 11:22-36; ’962 pat. at 13:44-58; ’833 pat. at 13:45-59; ’217 pat. at 29:15-28.

<sup>5</sup> Compl. ¶¶ 2, 3.

<sup>6</sup> *Id.* ¶¶ 15, 33-35.

<sup>7</sup> *Id.* ¶¶ 40-45.



- The Delivery Receipts Family (the ‘051 patent) is “directed towards the selection of the best routing carrier for transmitting messages.”
- The Platform Family (the ‘021 patent, ‘465 patent, and ‘376 patent) is “directed towards the concept of initiating and controlling a voice, push, or SMS message based on a REST API request.”
- The Path Selection Family (the ‘217 patent) is “directed towards the selection of a communication provider for transmitting messages.”<sup>8</sup>

All of the claims in all seven patents are method claims. In the complaint, Twilio specifies only one claim from each of the seven asserted patents and provides a mapping of the identified claim to the accused products to show an “example of one theory of infringement.”<sup>9</sup> Accordingly, TeleSign’s analysis of each family begins with these claims as representative of claims Twilio intends to assert in this action. The asserted patent family’s other claims are substantially similar and linked to the same abstract idea.<sup>10</sup> Accordingly, if the Court grants TeleSign’s Motion as to the asserted claims, Twilio should not be allowed to amend the complaint to assert infringement of other claims. Rather, the complaint should be dismissed with prejudice.

## II. Legal Standards

### A. Motion to Dismiss Under Federal Rule of Civil Procedure 12(b)(6)

A complaint must “contain sufficient factual matter, accepted as true, to state a claim to relief that is plausible on its face.”<sup>11</sup> Dismissal of one or more claims of a complaint under Rule 12(b)(6)

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<sup>8</sup> Compl. ¶36.

<sup>9</sup> Compl. ¶ 81 (claim 1 of the ‘962 patent), ¶ 96 (claim 5 of the ‘833 patent), ¶¶ 111, 114, 117, 120 (claim 1 of the ‘051 patent), ¶¶ 138, 140, 142 (claim 13 of the ‘021 patent), ¶ 159 (claim 1 of the ‘465 patent), ¶¶ 173, 174 (claim 1 of the ‘376 patent), ¶¶ 189, 190 (claim 15 of the ‘217 patent).

<sup>10</sup> For purposes of determining patent eligibility, it is sufficient to examine a subset of the claims as long as “the claims of the asserted patents are substantially similar in that they recite little more than the same abstract idea.” *Content Extraction & Transmission LLC v. Wells Fargo Bank, NA*, 776 F.3d 1343, 1348-49 (Fed. Cir. 2014).

<sup>11</sup> *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009) (internal quotation marks omitted).

1 can be based on a “lack of a cognizable legal theory or the absence of sufficient facts alleged under a  
2 cognizable legal theory.”<sup>12</sup>

### 3 **B. Ineligible Subject Matter Under 35 U.S.C. § 101**

4 Whether a claim recites patent-eligible subject matter under Section 101 is a question of law  
5 that is regularly decided under Rule 12.<sup>13</sup> This is the case even when several patents are at issue.<sup>14</sup>  
6 Where the court understands “the basic character of the claimed subject matter,” the question of  
7 patent eligibility may properly be resolved on the pleadings.<sup>15</sup> The Supreme Court has set forth a  
8 two-step framework (labeled as the “Alice test” or the “Alice framework”) to analyze whether  
9 patents are invalid under Section 101:<sup>16</sup>

10 First, we determine whether the claims at issue are directed to one of those  
11 patent-ineligible concepts. If so, we then ask, “[w]hat else is there in the  
12 claims before us?” To answer that question, we consider the elements of  
13 each claim both individually and “as an ordered combination” to  
14 determine whether the additional elements “transform the nature of the  
15 claim” into a patent-eligible application. We have described step two of  
16 this analysis as a search for an “‘inventive concept’”—i.e., an element or  
17 combination of elements that is “sufficient to ensure that the patent in  
18 practice amounts to significantly more than a patent upon the [ineligible  
19 concept] itself.”<sup>17</sup>

17 <sup>12</sup> *Balistreri v. Pacifica Police Dep’t*, 901 F.2d 696, 699 (9th Cir. 1990).

18 <sup>13</sup> *Papst Licensing GMBH & Co. v. Xilinx Inc.*, No. 16-CV-00925, 2016 U.S. Dist. LEXIS 76061, at  
19 \*19 (N.D. Cal. June 9, 2016) (citing *In re Roslin Inst. (Edinburgh)*, 750 F.3d 1333, 1335 (Fed. Cir.  
20 2014); *Dealertrack, Inc. v. Huber*, 674 F.3d 1315, 1333 (Fed. Cir. 2012)); *see also In re TLI*  
*Commc’ns LLC Patent Litig.*, 823 F.3d 607, 610, 615 (Fed. Cir. 2016) (affirming dismissal under  
21 Rule 12(b)(6)); *Content Extraction & Transmission LLC v. Wells Fargo Bank, N.A.*, 776 F.3d 1343,  
22 1343 (Fed. Cir. 2014) (affirming dismissal under Rule 12(b)(6)).

23 <sup>14</sup> *See CG Tech. Dev., LLC v. Big Fish Games, Inc.*, No. 2:16-cv-00857, 2016 U.S. Dist. LEXIS  
24 115594, at \*2-3, \*45 (D. Nev. Aug. 29, 2016) (dismissing six patents with hundreds of claims as  
25 patent-ineligible under 12(b)(6)); *Personalized Media Commc’ns, LLC v. Amazon.com, Inc.*, 161 F.  
26 Supp. 3d 325, 328 (D. Del. 2015) (dismissing seven patents as patent-ineligible, with four different  
27 abstract ideas, pursuant to Rule 12(c)); *Secure Mail Sols. LLC v. Universal Wilde, Inc.*, 169 F. Supp.  
28 3d 1039, 1058 (C.D. Cal. 2016) (dismissing seven patents with 143 asserted claims as patent-  
ineligible under 12(b)(6)); *Two-Way Media Ltd. v. Comcast Cable Commc’ns, LLC*, No. 14-cv-1006,  
2016 U.S. Dist. LEXIS 107478, at \*24 (D. Del. Aug. 15, 2016) (dismissing four patents based on  
three representative claims pursuant to Rule 12(c)).

<sup>15</sup> *Papst*, 2016 U.S. Dist. LEXIS 76061, at \*20 (citations omitted).

<sup>16</sup> *See Papst*, 2016 U.S. Dist. LEXIS 76061, at \*19.

<sup>17</sup> *Alice*, 134 S. Ct. at 2355 (citations omitted; alterations in original).

Because the Supreme Court and Federal Circuit haven't set forth a bright line test separating abstract ideas from concepts that are sufficiently concrete so as to require no further inquiry under the first step of the Alice framework, "courts have generally begun by comparing claims at issue to those claims already found to be directed to an abstract idea in previous cases."<sup>18</sup>

### III. The '962 and '833 Patents (Twilio's "Score Family")<sup>19</sup>

#### A. The claims in the "Score Family" are directed to an abstract idea.

Twilio alleges that TeleSign infringes claim 1 of the '962 patent and claim 5 of the '833 patent; Twilio refers to these patents as "The Score Family."<sup>20</sup> Both patents share a common specification. Reproduced below, claim 1 is representative:<sup>21</sup>

<p>1. A method comprising:  enrolling a plurality of accounts on a telecommunications platform, wherein an account includes account configuration;  at a fraud detection system of the telecommunications platform, receiving account usage data, wherein the account usage data includes at least communication configuration data and billing configuration data of account configuration and further includes communication history of the plurality of accounts;</p>	<p>calculating fraud scores of a set of fraud rules from the usage data, wherein at least a sub-set of the fraud rules include conditions of usage data patterns between at least two accounts;  detecting when the fraud scores of an account satisfy a fraud threshold;  initiating an action response when a fraud score satisfies the fraud threshold.</p>
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'962 pat. at 14:4-20. The claims of the '962 patent, including Claims 1 and 5, describe a method that (1) receives account-usage data of enrolled users, (2) calculates fraud scores using a set of fraud rules, (3) detects when the fraud scores meet a threshold, and (4) initiates an action when they do.<sup>22</sup> Considered as a whole, excluding generic computing-related language, the claims are directed to detecting fraudulent account activity among accounts on a telecommunications platform. Even

<sup>18</sup> *Papst*, 2016 U.S. Dist. LEXIS 76061, at \*26 (internal quotations and citations omitted).

<sup>19</sup> U.S. Pat. Nos. 8,737,962 (ECF No. 1-5); 9,270,833 (ECF No. 1-6).

<sup>20</sup> Compl. ¶¶ 36, 81, 96.

<sup>21</sup> Twilio will be hard-pressed to argue that claim 1 is not representative. Twilio's infringement mappings of the two patents are substantially similar. *Compare* Compl. at 7:18-9:14, with 10:24-13:18. Like claim 1, claim 5 of the '833 patent recites the common steps of enrolling users, receiving usage data, and calculating fraud scores. The main difference is that the claims of the '833 patent recite in greater detail the conventional notion of parent/child accounts (or sub-accounts), commonly used whenever businesses associate multiple accounts with a larger account (e.g., individual credit cards issued to employees of a common business) or when vendors operate as resellers of a provider's service so it can provide services to end users.

<sup>22</sup> See '962 pat. at FIG. 2.

Twilio acknowledges that the Score patents are directed to “**detecting fraudulent account activity**.”<sup>23</sup>

The idea of detecting fraudulent account activity is an abstract idea. It is a conventional business practice that companies have performed in one way or another for as long as they have had customer accounts. This business practice is comparable to other concepts that courts have found amount to be abstract ideas.<sup>24</sup> See, e.g., *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089, 1093-94 (Fed. Cir. 2016) (claim relating to “a system and method of detecting fraud and/or misuse in a computer environment...merely implement an old practice in a new environment”); *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1319 (Fed. Cir. 2016) (patent directed to the use of “virus screening software within the telephone network or the Internet”); *Cybersource Corp. v. Retail Decisions, Inc.*, 654 F.3d 1366, 1367, 1372-73 (Fed. Cir. 2011) (claims relating to “a method and system for detecting fraud in a credit card transaction between [a] consumer and a merchant over the Internet”). The Score Family thus fails the “eligible concept” test at *Alice*’s step one.

**B. The asserted claims in the “Score Family” lack an inventive concept.**

Because the “Score Family” claims are directed to an abstract idea, the Court must examine the elements of the claims to determine whether they contain an “inventive concept” sufficient to transform the claimed abstract idea into a patent-eligible application.<sup>25</sup> None of the steps in claim 1 necessarily recite a new computer or computing device, just conventional steps. For example, a phone company representative, using “the human mind, or ... using a pen and paper”<sup>26</sup> can [1a]<sup>27</sup> enroll two user accounts that include telephone numbers (“account configuration”); [1b] check usage data of their accounts, such as whom the users have called (“communication configuration data”)

<sup>23</sup> Compl. ¶ 36.

<sup>24</sup> See *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1335 (Fed. Cir. 2016) (to determine what constitutes an abstract idea, it is “sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases”).

<sup>25</sup> See *Alice*, 134 S. Ct. at 2357.

<sup>26</sup> *CyberSource*, 654 F.3d at 1372-73 (“[C]omputational methods which can be performed entirely in the human mind are the types of methods that embody the basic tools of scientific and technological work that are free to all men and reserved exclusively to none.”).

<sup>27</sup> This claim-step numbering tracks the Complaint’s in the table following ¶ 81.

1 and the users' credit card information ("billing configuration data"); [1c] notice that the different  
 2 accounts use the same billing information (a "usage data pattern"); [1d] thus give both accounts a  
 3 high fraud score; and (1e) flag the user accounts. Moreover, detecting fraudulent account activity is  
 4 not unique to the telecommunications platform; thus the abstract idea remains unpatentable despite  
 5 the patents' effort to limit the invention to the telecommunications field.<sup>28</sup>

6 Further, the functions performed and components employed at each step of the process are  
 7 "purely conventional."<sup>29</sup> For example, regarding the "**enrolling**" step [1a], the operational  
 8 components of the "telecommunications platform" are generic hardware; they can include "any  
 9 servers, databases, processors or other resources that either define account configuration, account  
 10 usage, or other aspects of the account within the platform"<sup>30</sup> or conventional components such as  
 11 "call history databases, message history databases, account databases," or even "any suitable  
 12 machine containing data useful for calculating a fraud score."<sup>31</sup> According to Twilio, "account  
 13 configuration" can be a user's phone number.<sup>32</sup>

14 Regarding the "**receiving**" step [1b], usage or configuration data broadly includes "any  
 15 suitable usage data"<sup>33</sup> including "information pertaining to" credit cards or "any suitable platform  
 16 account data."<sup>34</sup> Communication configuration data includes "communication history such as  
 17 involved endpoints [e.g., phones], duration of the communication, content of the communication,  
 18 frequency of the communications, geographic information of the communication, and other logged  
 19 information."<sup>35</sup> Billing configuration data includes "the number of credit cards on the account,"  
 20 "number or frequency of changes to billing information," "other billing related information[,] . . .

21 <sup>28</sup> *Bilski v. Kappos*, 561 U.S. 593, 612 (2010) ("[L]imiting an abstract idea to one field of use or  
 22 adding token postsolution components d[oes] not make [a] concept patentable."); *Accenture Global  
 23 Servs., GmbH v. Guidewire Software, Inc.*, 728 F.3d 1336, 1345 (Fed. Cir. 2013) (same).

24 <sup>29</sup> *Alice*, 134 S. Ct. at 2358.

25 <sup>30</sup> '962 pat. at 5:33-36.

26 <sup>31</sup> '962 pat. at 8:2-9.

27 <sup>32</sup> Compl. ¶ 81.

28 <sup>33</sup> '962 pat. at 9:55.

<sup>34</sup> '962 pat. at 10:59-62.

<sup>35</sup> '962 pat. at 4:38-43.

1 including stolen or flagged credit card information” from outside sources.<sup>36</sup> Telephone companies  
 2 have long enrolled customer accounts and collected account usage data of their customers. These  
 3 long-standing business practices, widely known before the patents, cannot constitute an inventive  
 4 concept.

5 Regarding the “**calculating fraud scores**” step [1c] and “**detecting fraud**” step [1d], the  
 6 features and functions of these steps are also routine and conventional. According to the  
 7 specification, fraud scores do not have to be numbers or true scores; they could just be a label or  
 8 “any suitable construct to communicate fraud likelihood.”<sup>37</sup> Usage data patterns refer to, among  
 9 other things, patterns of usage data, including account information or communication history, such  
 10 as identical billing information across multiple accounts.<sup>38</sup> And the scope of a rules engine or fraud-  
 11 scoring system is unrestricted. In fact, the specification contemplates using humans—fraud  
 12 analysts—or “any suitable machine learning or algorithmic approaches to facilitate identifying illicit  
 13 use cases.”<sup>39</sup> But a “claim that merely requires using a ‘computer to execute an algorithm that can  
 14 be performed entirely in the human mind’ or using pencil and paper is impermissibly abstract.”<sup>40</sup>

15 The patents do not describe how to calculate fraud scores or what accounts for a “fraud  
 16 threshold.” “Fraud threshold” is circularly explained and purports to be any definition of “when  
 17 particular types of actions are taken.”<sup>41</sup> As such, “[t]he features set forth in the claims are described  
 18 and claimed generically rather than with the specificity necessary to show how those components  
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21 <sup>36</sup> ’962 pat. at 4:50-60.

22 <sup>37</sup> ’962 pat. at 9:23-24.

23 <sup>38</sup> ’962 pat. at 8:64-9:8; *see also id.* at 11:42-54, 12:64-65, claims 5 & 6.

24 <sup>39</sup> ’962 pat. at 6:32-34, 6:40-42 (“Preferably a **combination** of automatic fraud rule generation and  
 25 **fraud analyst input** is used in **during the method** of the fraud scoring system.”), *see also id.* at  
 26 4:32-36 (the fraud scoring system “may additionally include an **analyst-facilitated** user interface  
 27 wherein new rules can be created and issues can be **manually** ignored or acted upon, which  
 28 functions to **supplement** automatic operation with **human insight**.”).

<sup>40</sup> *Compression Tech. Solutions LLC v. EMC Corp.*, No. C–12–01746, 2013 WL 2368039, at \*5  
 (N.D. Cal. May 29, 2013)) (quoting *CyberSource*, 654 F.3d at 1375).

<sup>41</sup> ’962 pat. at 8:61-62.



1 provide a concrete solution to the problem addressed by the patent.”<sup>42</sup> Here, the patents simply and  
 2 generically claim the conventional idea of using a set of fraud rules to detect fraud among users of a  
 3 telecommunications platform. The claimed technology of using fraud rules and usage patterns is  
 4 very similar to the technology at issue in *FairWarning*, which disclosed “ways to detect fraud and  
 5 misuse by identifying unusual patterns in users’ access of sensitive data” and “analyze[d] the  
 6 information according to one of several rules”; there the Federal Circuit affirmed the district court’s  
 7 12(b)(6) dismissal.<sup>43</sup>

8 Regarding the “**initiating an action**” step [1e], the action can be “any suitable course of  
 9 action.”<sup>44</sup> Thus, each step of claim 1 simply involves performance of “conventional activities  
 10 previously known to the industry.”<sup>45</sup>

11 Even when viewed as an ordered combination, the claim elements do not add to or transform  
 12 the abstract idea of detecting fraudulent account activity into a patent-eligible application. Nothing  
 13 in the claims specifies how to solve any alleged problem—for example, how the claimed method  
 14 detects fraud in a novel way to achieve a technological improvement—or limits performance of the  
 15 recited functions to specialized, non-conventional devices. Twilio’s Score patents focus on the  
 16 result (fraud detection) without committing to or disclosing how that result is accomplished—  
 17 particularly, *how* fraudulent account activity is actually detected using rules. The Score Family thus  
 18 fails the “inventive concept” test at *Alice*’s step two.

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21 <sup>42</sup> *Affinity Labs of Tex. v. DIRECTV, LLC*, 838 F.3d 1253, 1260 (Fed. Cir. 2016); *see also, e.g.,*  
 22 *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (no inventive  
 23 concept where there was no description of the mechanism for accomplishing the stated “essential  
 24 innovation” and thus “no restriction on how the result is accomplished”); *Dealertrack, Inc. v. Huber*,  
 25 674 F.3d 1315, 1333 (Fed. Cir. 2012) (computer did not sufficiently limit the claims where the  
 26 patent did not “specify how the computer hardware and database are specially programmed to  
 27 perform the steps claimed in the patent”); *cf. In re TLI Commc’ns*, 823 F.3d at 615 (“steps that  
 28 generically spell out what it means to ‘apply it on a telephone network’ also cannot confer patent  
 eligibility”).

<sup>43</sup> *FairWarning*, 839 F.3d at 1092.

<sup>44</sup> ’962 pat. at 13:15.

<sup>45</sup> *Alice*, 134 S. Ct. at 2359.

IV. The '051 Patent (Twilio's "Delivery Receipts" Family)<sup>46</sup>

A. The claims of the "Delivery Receipts" patent are directed to an abstract idea.

Twilio alleges that TeleSign infringes claim 1 of the '051 patent, which Twilio refers to as "The Delivery Receipts Family" even though only one patent from the "Family" is asserted.<sup>47</sup> Reproduced below, claim 1 is representative:

<p>1. A method for transmitting telephony messages comprising:</p> <p>transmitting a first outgoing telephony message through a first channel using a first routing option selected from a plurality of routing options;</p> <p>receiving a message delivery report through at least a second channel, wherein the second channel is different from the first channel;</p>	<p>updating message routing data in response to the message delivery report;</p> <p>selecting a second routing option for at least a second outgoing message, the second routing option selected from the plurality of routing options prioritized by the updated message routing data; and</p> <p>transmitting the second outgoing telephony message through the first channel using the selected second routing option.</p>
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'051 pat. at 11:43-59. Considered as a whole, excluding generic computing-related language, the claims of the '051 patent are directed to finding the best routing option for transmitting messages based on a delivery receipt (either the message delivery report of claim 1 and its dependents or the results of a tracked message delivery of claim 18 and its dependents). Even Twilio admits that the patent is directed to **"the selection of the best routing carrier for transmitting messages."**<sup>48</sup>

Finding the best routing option for transmitting messages is a patent-ineligible abstract idea under *Alice* step one, and is comparable to other concepts that courts have found amount to abstract ideas. See, e.g., *Mobile Telecomms. Techs., LLC v. Blackberry Corp.*, No. 3:12-cv-1652, 2016 U.S. Dist. LEXIS 63067, at \*6-10 (N.D. Tex. May 12, 2016) (claims "directed at utilizing a two-way communication network to process data messages that cannot be successfully transmitted from a network operations center ('NOC') to a mobile unit" were directed to abstract idea of sending and storing messages); *Mobile Telecomms. Techs., LLC v. UPS, Inc.*, 173 F. Supp. 3d 1324, 1330-32 (N.D. Ga. 2016) (method for delivery notification of an express mail delivery, using SMS text messages and e-mail, was directed to abstract idea); *Eclipse IP v. McKinley Equip.*, No. CV 14-154,

<sup>46</sup> U.S. Pat. No. 8,738,051 (ECF No. 1-4).

<sup>47</sup> Compl. ¶¶ 36, 111, 114, 117.

<sup>48</sup> Compl. ¶ 36.



2014 U.S. Dist. LEXIS 125395, 2014 WL 4407592, at \*11 (C.D. Cal. Sept. 4, 2014) (patent claims that describe “asking someone to do a task, getting an affirmative response, and then waiting until the task is done” are directed to abstract ideas); *Comcast IP Holdings I, LLC v. Sprint Commc’ns Co. L.P.*, 55 F. Supp. 3d 544, 547-49 (D. Del. 2014) (claim relating to a “telephony network optimization method” reciting only “receiving” and “determining” steps describe only “the simple concept of determining if a decision is required” and is a patent ineligible abstract idea). Claim 1 describes a method for transmitting telephony messages involving choosing one route to send a message, receiving a report through a different route regarding the message’s delivery, choosing another routing option based on the report, and sending another message using the other routing option.<sup>49</sup> Each of the steps and the claim as a whole are directed to an abstraction, lacking any concrete or tangible application.

More specifically, steps [1a], [1b], and [1e] recite the act of transmitting messages and receiving a message delivery report. These steps do not have any concrete form, they do not specify a structure for the message or the message delivery report, and they do not specify *how* the message is transmitted or how the message delivery report is received. Steps [1c] and [1d] recite the idea of updating message routing data in response to a message delivery report and selecting another route option based on the updated data, but fail to specify how the routing options are “prioritized” by the updated data. Neither the claim nor the specification describes any specific algorithm or implementation details, and the claim is not limited to any particular kind of message or routing option. Thus, each step of claim 1 and the claim as a whole is directed to a high level of generality “describing a desired function or outcome, without providing any limiting detail that confines the claim to a particular solution to an identified problem. The purely functional nature of the claim confirms that it is directed to an abstract idea, not to a concrete embodiment of that idea.”<sup>50</sup> The Delivery Receipts Family is directed to an abstract idea under step one of the *Alice* test.

<sup>49</sup> See, e.g., claim 1 and FIG. 1 of the ’051 patent.

<sup>50</sup> *Affinity Labs of Tex. v. DIRECTV, LLC*, 838 F.3d 1253, 1260 (Fed. Cir. 2016) (holding that the claimed invention was an abstract idea and “entirely functional in nature”).

1           **A.       The “Delivery Receipts” patent lacks an inventive concept.**

2           Turning to step two, the claims of the ’051 patent recite no inventive concept sufficient to  
 3 ensure that the patents amount to significantly more than a patent upon the abstract idea itself. Using  
 4 a delivery report to select the best route for transmission of a message was ubiquitous long before  
 5 Twilio’s alleged invention. Indeed, the limitations of claim 1 would be met in the following two  
 6 simple examples. First, a telegraph company sends a message to a recipient via Morse code using a  
 7 first telegraph key (a first starting node). The recipient mails the sender a letter that its telegraphed  
 8 message arrived delayed. The company notes that the first telegraph key might be faulty. The  
 9 company selects a different telegraph key (a different starting node) and sends a second message to  
 10 the recipient using the newly-selected telegraph key. Or as a second example, let’s say a person has  
 11 one cellphone with Verizon and one with AT&T. From a remote lake house, the person tries to text  
 12 a friend using her Verizon phone: “Gorgeous morning, wish you were here.” In the evening, she  
 13 receives an email from her friend: “Looks great, but FYI, I only just now got your text.” She decides  
 14 to text using her AT&T phone going forward and sends another text through the first channel (SMS)  
 15 using her AT&T phone (different routing option).

16           The functions performed and components employed in the claimed process are “purely  
 17 conventional.”<sup>51</sup> Regarding the “**transmitting**” steps, the patent acknowledges that telephony  
 18 messages include conventional messages such as “SMS, multimedia messaging service (MMS), . . .  
 19 and/or **any** suitable messaging technique.”<sup>52</sup> Likewise, a “first channel” and “second channel” are  
 20 conventional; they include staple communications paths such as an “SMS message routing channel”  
 21 and “an Internet network channel” (i.e., email); and both used conventionally for their intended  
 22 purpose.<sup>53</sup> Thus, people use two channels every time they text a friend through a phone channel and  
 23 email using the Internet. The routing options are broadly “characterized by different service  
 24 providers, networks, geographic locations, physical machines, resource addresses, contractual  
 25

26           <sup>51</sup> *Alice*, 134 S. Ct. at 2358.

27           <sup>52</sup> ’051 pat. at 3:5-9.

28           <sup>53</sup> ’051 pat. at 3:15-17.

1 agreements, communication protocols, time-dependent quality/performance properties, and/or any  
2 other suitable distinguishing characteristics.”<sup>54</sup>

3 Regarding the “**receiving**” step, according to Twilio, a “delivery report” can be simply  
4 “feedback regarding information about the transmitted message,” including something as mundane  
5 as an indication that a message was not sent.<sup>55</sup> The report need not be sent at any certain time; it  
6 could be sent “well after the message has been received.”<sup>56</sup> It does not even need to be generated in  
7 response to the message arriving at its destination; that is only “preferable.”<sup>57</sup>

8 And the “**updating**” step merely involves adjusting “the criteria used in selecting routing  
9 options” which can include conventional items such as “price, contract obligations, time of day.”<sup>58</sup>

10 No step includes an inventive concept, taken alone or even as an ordered combination. In  
11 plain terms, the ’051 patent describes the long-standing practice of picking an initial node for  
12 delivery of a message and then picking a different node to send a second message to a recipient  
13 based on feedback regarding other sent messages. Claim 1 is not directed to any improvement of the  
14 computer or technology itself. It plainly lacks any “inventive concept” sufficient to transform it  
15 from the abstract idea to which it is directed.

## 16 **V. The ’021, ’465, and ’376 Patents (Twilio’s “Platform Family”)**<sup>59</sup>

### 17 **A. The patents of the “Platform Family” are directed to an abstract idea.**

18 Twilio alleges that TeleSign infringes claim 13 of the ’021 patent, claim 1 of the ’465 patent,  
19 and claim 1 of the ’376 patent, which Twilio collectively refers to as “The Platform Family.”<sup>60</sup> The  
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23 <sup>54</sup> ’051 pat. at 3:35-42.

24 <sup>55</sup> Compl. ¶ 111; ’051 pat. at 4:31-33.

25 <sup>56</sup> ’051 pat. at 4:50-52.

26 <sup>57</sup> ’051 pat. at 4:23-25.

27 <sup>58</sup> ’051 pat. at 6:31-33, 6:44-45.

28 <sup>59</sup> U.S. Pat. Nos. 8,306,021 (ECF No. 1-1); 8,837,465 (ECF No. 1-2); 8,755,376 (ECF No. 1-3).

<sup>60</sup> Compl. ¶¶ 36, 138, 140, 142, 159, 173, 174,

three patents share a common specification. Reproduced below, claim 13 of the '021 patent is representative:<sup>61</sup>

<p>13. A method comprising:  communicating with an application server using an application layer protocol;  processing telephony instructions with a call router;  creating call router resources accessible through a call router Application Programming Interface (API), wherein the call router resources are accessible by outside devices at an addressable Uniform Resource Identifier (URI);  mapping a telephony session to the URI, the URI being associated with the application server;</p>	<p>sending a request to the application server;  embedding state information of the telephony session in the request;  receiving from the application server a response comprising telephony instructions for sequential processing;  receiving an API request from the application server for interaction with a resource; and  responding to an API request based on the interaction with a resource.</p>
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'021 pat. at 19:19-20:2. Considered as a whole, excluding generic computer components (e.g., servers) and conventional computing-related language (such as accessing resources through an API), the claims are directed to starting a call, mapping the call to an identifier, sending a request for some action be done to or with the call, processing the request, receiving a response, and performing an action based on the response.<sup>62</sup> Accordingly, and consistent with Twilio's own articulation of the Platform Family, the claims are directed to the abstract idea of **initiating and controlling a message (e.g., voice, text, etc.) based on a request.**<sup>63</sup> Even Twilio admits the Platform patents are directed to a "concept"—i.e., to the idea itself—"of initiating and controlling a voice, push, or SMS message based on a REST API request."<sup>64</sup>

The concept of initiating and controlling a message based on a request is a patent-ineligible abstract idea under *Alice* step one. This practice is comparable to other concepts that courts have

<sup>61</sup> Twilio would be hard-pressed to dispute that claim 13 is representative given that Twilio chose this claim to assert and given Twilio's substantially similar infringement mappings in the Complaint. See Compl. at 24:12-30:17, 32:12-34:15, and 36:3-40:7.

<sup>62</sup> See '021 pat. at FIG. 1; claim 13.

<sup>63</sup> See Compl. ¶ 36.

<sup>64</sup> *Id.* Twilio's characterization is curious given that a "REST API" request is mentioned in only one dependent claim of the '021 patent (claim 11), is completely missing from the '465 patent, and is really a feature only in the '376 patent. Regardless, the patents openly concede that a REST API was "familiar" and "known in the art" at the time. Thus, even if the abstract idea behind the patents is re-cast as controlling the message based on a "REST API" request, the patents are not saved because Twilio is simply attempting to limit the use of an abstract idea to a particular technological environment, which the Supreme Court has made clear cannot transform a patent-ineligible abstract idea into a patent-eligible invention. *Alice* 134 S. Ct. at 2358.

found amount to abstract ideas. *See, e.g., Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015) (finding abstract claims relating to “retaining information in the navigation of online forms” on the Internet); *EasyWeb Innovations, LLC v. Twitter, Inc.*, No. 11-CV-4550, 2016 U.S. Dist. LEXIS 42549, at \*86-92 (E.D.N.Y. Mar. 30, 2016) (finding claims directed to authenticating a user based on the format of the user’s message were directed to abstract idea); *Stanacard v. Rubard, LLC*, No. 12 Civ. 5176, 2015 U.S. Dist. LEXIS 157345, at \*19 (S.D.N.Y. Nov. 18, 2015) (claims directed to the idea of “connecting two people via long distance telephony using caller ID and call forwarding” are directed to abstract idea); *Parus Holdings, Inc. v. Sallie Mae Bank*, 137 F. Supp. 3d 660, 672 (D. Del. 2015) (finding that “automated tasks of (1) receiving messages via a phone or Internet connection and then transmitting those messages to a subscriber by phone or Internet; and (2) receiving a message from a subscriber by phone or Internet and then forwarding that message based on rules established by the subscriber” had “pre-Internet analogs” and thus, “suggest[ed] methods of organizing human (business) activity and, therefore, an abstract idea”); *Telenit Techs., LLC v. Alteva, Inc.*, No. 2:14-CV-369, 2015 U.S. Dist. LEXIS 125991, at \*2, \*44-49 (E.D. Tex. Sept. 21, 2015) (claims relating to “technology for placing and receiving network-based telephone calls” are directed to an abstract idea). The Platform Family patents are directed to an abstract idea under step one of the *Alice* test.

**B. The claims of the “Platform Family” lack an inventive concept.**

Turning to step two, the claims of the Platform Family recite no inventive concept. Nothing in the claims “purport[s] to improve the functioning of” a computer itself.<sup>65</sup> No special or improved hardware equipment is claimed.<sup>66</sup> As in *Alice*, “the relevant question is whether the claims here do more than simply instruct the practitioner to implement [on a generic computer] the abstract idea of” initiating and controlling a voice or text message based on a request.<sup>67</sup> They do not. The claims simply purport to carry out long-standing, conventional technology (telephony operations such as

<sup>65</sup> *Alice*, 134 S. Ct. at 2359.

<sup>66</sup> To the contrary, the patents note that “[s]oftware and commodity hardware now provide an alternative to expensive carrier equipment.” ‘021 pat. at 1:33-34.

<sup>67</sup> *Alice*, 134 S. Ct. 2359.

conducting phone calls or sending text messages) using generic computing components, but via the Internet. As illustrated in the following excerpt, they are the quintessential example of using existing and familiar technology, or saying “apply it with a computer,” where “it” is conventional, pre-Internet activity (telephony operations):

The method and system of the preferred embodiments enables web developers to use their existing skills and tools with the esoteric world of telephony, making telephony application development as easy as web programming. The method and system use the familiar web site visitor model to interact with a web developer’s application, with **each step of the phone call analogous to a traditional page view**. Within this model, developers reuse their existing tools and techniques, including familiar concepts such as *HTTP redirects, accessing resources through an API, cookies, and mime-type responses* to construct complex telephony applications. The method of processing telephony instructions and creating call router resources accessible through an API (a call router API) cooperatively function to enable a stateless and **simple** telephony language with more call router resources and information provided through the call router (preferably a **REST API as is familiar to many web developers**).<sup>68</sup>

Here, as opposed to solving a problem rooted in technology or that has arisen because of the Internet, the Platform patents merely seek to use the Internet to apply and carry out conventional technology. As shown above, for example, the specification describes using “the **familiar** web site visitor model, . . . with each step of the phone call analogous to a **traditional** page view.”<sup>69</sup> Due to the design of the Internet, conventional interaction with Internet webpages is generally stateless or without memory, with each interaction, such as a request for a webpage, handled by having to include any information to be preserved along with the request for the webpage. (This is why many URLs are so long.) Users experience this when they click the “back” button on a browser to edit previous content of a multi-page form only to be presented with a blank—instead of filled out—form. Clicking the “back” button causes a former webpage to be reloaded afresh, with formerly entered data lost. That was the problem allegedly addressed by the patents in *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1348 (Fed. Cir. 2015), which the Federal Circuit ruled were

<sup>68</sup> ’021 pat. at 1:63-2:18.

<sup>69</sup> ’021 pat. at 2:5-8.



1 not patent-eligible. The patents here do not purport to address even the statelessness problem  
 2 because the solution was already well-known and conventional: put all the information into a  
 3 request so that the recipient does not need anything other than the request (like a fully addressed  
 4 stamped envelope).<sup>70</sup> Using a well-known Internet technology in a conventional manner as it is  
 5 designed to be used, but attempting to limit the technological application to a telephony context is  
 6 not an inventive concept.

7 Further, removing the conventional or generic-computing recitations, claim 13 recites  
 8 communicating with another; processing phone-call instructions; creating resources that are  
 9 accessible by others (like caller ID information); mapping a phone call to an identifier; sending a  
 10 request regarding the call; receiving responsive instructions; receiving a request to interact with a  
 11 resource (like retrieving call ID information); and responding based on the interaction. That is the  
 12 conventional operation of general telephony.

13 Even more specifically, step [13a] recites communicating with an application server (which  
 14 is a conventional computing component and thus may be considered a generic computer) using an  
 15 application layer protocol (which can include a standard Internet protocol, such as HTTP)<sup>71</sup> and  
 16 processing telephony instructions (including conventional things like connecting to a phone or  
 17 playing a media file)<sup>72</sup> with a call router (a conventional hardware component routinely used for  
 18 processing instructions).

19 Step [13b] recites creating “call-router resources.” Claim 14 confirms that these “call-router  
 20 resources” can be any of the following “a call resource, a media resource, an incoming address  
 21 resource, an account resource, and a caller identification (ID) resource.” The specification confirms  
 22 that all of these are broad, conventional items. For example, the “call resource” is said “to allow an  
 23 application to get or modify the state of a telephony session in the call router” and that a “session or

24  
 25 <sup>70</sup> See ‘021 pat. at 8:15-17 (“Call Router API is preferably . . . a REST API . . . **as is known in the art**” and “preferably stores state information in a persistent URI for a resource” that “contains all the  
 26 necessary state information” it needs).

27 <sup>71</sup> ‘021 pat. at claim 4.

28 <sup>72</sup> ‘021 pat., claim 16.

1 call may be in-progress, completed, failed, not yet initiated, and/or in any suitable call status.”<sup>73</sup>

2 This is merely describing common statuses of conventional telephone calls, such as “completed.”

3 The “media resource” “functions to allow an application to retrieve and/or access information  
4 of media,” which could be used to “access information and recordings made during a call” or be  
5 things like “call transcripts, text messages, key press logs, faxes, a binary-coded resource, **and/or**  
6 **any suitable media.**”<sup>74</sup> This implicates things like recording calls for quality-control purposes or  
7 even things as simple as a text message, logging what buttons someone presses, or a conventional  
8 fax.

9 The “incoming address resource” “functions to allow an application to get, modify, or  
10 provision new inbound DID phone numbers” and the like.<sup>75</sup> “DID” refers to direct-dialed numbers,  
11 like the direct dial of someone’s office phone instead of having to dial their extension. Thus, this  
12 feature includes something as conventional as starting a new call to a direct-dialed number or even  
13 establishing the new number itself.

14 An “account resource” “functions to allow an application to retrieve and/or modify account  
15 information,” which could include conventional items such as an “account name, usage information,  
16 contact information, initial URI, setup parameters, or any suitable account information.”<sup>76</sup> Again,  
17 this is conventional account information.

18 The “caller ID resource” functions conventionally: “to allow an application to retrieve,  
19 modify, register new caller ID’s (phone numbers), and/or delete caller identification information.”

20 Importantly, claim 13 merely requires “creating” these resources, all of which are set forth in  
21 the disjunctive. They are said to be created “accessible through a call router Application  
22 Programming Interface (API),” but again, the patent concedes that “accessing resources through an  
23 API” is a “familiar concept[]” that can be done with “existing tools and techniques.”<sup>77</sup> Courts have

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24 <sup>73</sup> ’021 pat. at 10:38-42.

25 <sup>74</sup> ’021 pat. at 12:4-13.

26 <sup>75</sup> ’021 pat. at 10:29-31.

27 <sup>76</sup> ’021 pat. at 9:64-66.

<sup>77</sup> ’021 pat. at 2:9-10.



1 held that using computers to communicate through an API is nothing more than using “generic  
2 computing devices, languages, and protocols to accomplish well-known” activities.<sup>78</sup> Thus, step  
3 [13b] does not establish an inventive concept.

4 Step [13c] recites mapping the call to an identifier (URI) and sending a request that includes  
5 information regarding the call. Mapping calls to identifiers is a conventional and staple operation.  
6 This is generally how phone companies keep track of billing and provides bills to customers. Step  
7 [13d] recites receiving a response that includes instructions for “sequential processing,” which just  
8 means that they are carried out in order or “line-by-line,” which is not an inventive concept and not  
9 held out as unconventional in the patents.<sup>79</sup>

10 Step [13e] recites receiving a request for interaction with a resource. There are no  
11 meaningful constraints on “interaction;” thus, this step refers to interacting with any of the  
12 aforementioned broad categories of resources. And mere interaction with such a resource does not  
13 amount to an inventive concept. The last step [13f] recites responding to the request, which is what  
14 conventionally occurs when a request is received.

15 When considered as an ordered combination, the steps of the methods “add nothing that is  
16 not already present when the steps are considered separately.”<sup>80</sup> The analysis above contemplated an  
17 order. Those steps do not achieve any unconventional result when performed together. They occur  
18 in a conventional order. In other words, this claim is merely implementing a well-known routine to  
19 the field of telephony and using telephony data instead of other internet data—which is not sufficient  
20  
21

22 <sup>78</sup> *Nextpoint, Inc. v. Hewlett-Packard Co.*, No. 15 C 8550, 2016 U.S. Dist. LEXIS 74470, at \*18-19  
23 (N.D. Ill. June 8, 2016) (complaint dismissed where asserted patent “discloses generic computing  
24 components (e.g. a ‘host computer,’ and ‘physical servers or virtual servers...having dedicated  
25 computational resources such as hard disk, memory, processor abilities, etc.), each performing its  
26 expected functions and communicating with the others ‘**through a web services API**, such as  
27 extensible markup language (XML) or other such language.’ ... In other words, the specification  
28 describes nothing more than the routine use of generic computing devices, languages, and protocols  
to accomplish well-known ESI management activities.”).

<sup>79</sup> ’021 pat. at 7:4-6.

<sup>80</sup> *Alice*, 134 S. Ct. at 2359.

to transform it from an abstract idea.<sup>81</sup> Claim 13 lacks any inventive concept sufficient to transform it from the abstract idea to which it is directed.

**1. The remaining claims of the '021 patent add only trivial limitations insufficient to confer patentability.**

Claim 1 is substantially similar to claim 13. While the final three steps vary some, they are so broad (storing state information, which could include a phone number, in a URI; modifying call-router resources, which could include selecting a new message to be played; and interacting with media of the call router, which could include playing the new message) and conventional that claim 1 is invalid for the same reasons as claim 13. Claim 11 recites the API being “substantially” a REST API, which, as previously discussed, the patents concede was “familiar to many web developers”<sup>82</sup> and “known in the art.”

**2. The claims of the '376 patent fail to add meaningful limitations**

The claims of the '376 patent share the same basic character as those of the '021 patent. For example, claim 1 recites operating a generic telephony network on and generic “internet connected system” using steps similar to the claims of the '021 patent. The main difference is that claim 1 expressly recites using a “REST API,” which, as discussed above, was well-known and familiar.

**3. The claims of the '465 patent fail to add meaningful limitations**

The claims of the '465 patent share the same basic character as those of the '021 patent. For example, claim 1 is similar to claim 13 of the '021 and uses plainer language. The telephony session is said to be a voice session (e.g., a conventional voice call). It purports to be even broader than claim 13. For example, taken in turn, its steps recite associating and mapping an identifier with telephony endpoint, such as a phone (which must always be done in any call); sending some sort of request that includes state information (which could be a phone number); receiving a response that includes instructions, and then executing those instructions in order. Thus, for all the reasons

<sup>81</sup> *In re TLI Commc'ns*, 823 F.3d at 615 (“here, steps that generically spell out what it means to ‘apply it on a telephone network’ also cannot confer patent eligibility”).

<sup>82</sup> '021 pat. at 2:17-18, 8:16-17.

previously mentioned in connection with the '021 patent, the '465 patent encompasses patent-ineligible subject matter.

#### 4. Confirmation that the claims of Platform Family are invalid.

Confirming that the patents are trying to preempt ideas themselves, they close with a non-exhaustive list of use conventional use cases, those that would implement “the most common phone system features”<sup>83</sup> using an API, which again, was conceded as “a familiar concept.”<sup>84</sup> That list includes things like a “Conference Application” that allows “three or more callers to participate in a call simultaneously” (which is typical conference calling where call-ins and passcodes are provided); a “Person” application that “represents a **human-being** user of a telephone system”; and a “VoicemailBox application that plays a greeting and allows the caller to record a message. Such a wide, varied, and far-reaching set of applications of the patented technology confirm that the Platform Patents seek to preempt the very building blocks of ingenuity, including conventional building blocks, not patent-eligible improvements. In fact, the applications of the claimed call router could “include any collection and/or **permutation** or these **or other** suitable prebuilt telephony functions and features.”<sup>85</sup> The claims are intended to reach “simple” PBX functionality such as something mundane as “voicemail features.”<sup>86</sup>

#### VI. The '217 Patent (Twilio's “Path Selection” Family)<sup>87</sup>

##### A. The “Path Selection” patent is directed to an abstract idea.

Twilio alleges that TeleSign infringes claim 15 of the '217 patent, which Twilio refers to as “The Path Selection Family” even though only one patent from the “Family” is asserted.<sup>88</sup> Reproduced below, claim 15 is representative:

<p><b>15. A method comprising:</b>  at a multi-tenant communication platform, and responsive to authentication of a communication request provided by an external system, the communication request specifying a communication destination and account information:  determining a routing address record of the communication platform that matches the communication destination of the communication request, the matching</p>	<p>routing address record associating the communication destination with a plurality of external communication providers;  selecting at least one communication provider associated with the matching routing address record; and  providing a request to establish communication with the communication destination to each selected communication provider.</p>
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<sup>87</sup> U.S. Pat. No. 9,226,217 (ECF No. 1-7).

<sup>88</sup> Compl. ¶¶ 36, 189, 190.

’217 pat. at 31:21-37. Considered as a whole, excluding generic computing-related language, the claims of the ’217 patent are directed to the abstract idea of—in Twilio’s own words—“the selection of a communication provider for transmitting messages.”<sup>89</sup> That is conventional activity that occurs whenever a cell-phone carrier selects a roaming partner or contracting carrier to send messages, whenever businesses select couriers to deliver requested messages, or even when individuals select someone to send messages they want delivered.

Selecting a communication provider for transmitting messages is a patent-ineligible abstract idea under *Alice* step one, and is comparable to other concepts that courts have found amount to be abstract ideas. *See, e.g., Mobile Telecomms. Techs., LLC v. Blackberry Corp.*, No. 3:12-cv-1652, 2016 U.S. Dist. LEXIS 63067, at \*6-10 (N.D. Tex. May 12, 2016) (claims “directed at utilizing a two-way communication network to process data messages that cannot be successfully transmitted from a network operations center (‘NOC’) to a mobile unit” were directed to abstract idea of sending and storing messages) (claims describing “an electronic messaging system that provides coded communications between messaging terminals” were directed to abstract idea of “coded communication”); *Telenit Techs., LLC v. Alteva, Inc.*, No. 2:14-CV-369, 2015 U.S. Dist. LEXIS 125991, at \*2, \*44-49 (E.D. Tex. Sept. 21, 2015) (claims relating to “technology for placing and receiving network-based telephone calls” are directed to an abstract idea). The Path Selection Family patent is directed to an abstract idea under step one of the *Alice* test.

**B. The “Path Selection” patent lacks an inventive concept.**

Turning to step two, the claims of the ’217 patent, including as an ordered combination, recite no inventive concept sufficient to ensure that the patent amounts to significantly more than a patent upon the abstract idea itself. The claims are directed to a disembodied method of using conventional and generic computing components to perform the abstract idea of selecting a communication provider to transmit messages. For example, the only two arguable pieces of hardware are 1) “multi-tenant communication platform,” which can simply be a conventional “server” and 2) an “external system,” which is said to include an “application server.” Claim 15

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<sup>89</sup> Compl. ¶ 36.

1 recites operating in response to the communication response being authenticated, which would be  
 2 akin to inspecting the royal seal of a message purportedly sealed with a ruler's signet ring. If "YES"  
 3 (it matches), proceed, if "NO," do not. Having a process proceed after such authentication is  
 4 conventional.

5 The next recited step [15b] involves determining a routing address. Twilio proves the  
 6 conventionality of this step by asserting that it covers traditional activity such as when one  
 7 telecommunications carrier uses another to deliver messages. Compl. at 42:14-15. In fact, Twilio  
 8 alleges that this step is performed by virtue of simply being a "Mobile Network Operator," which  
 9 have long predated 2014 (the '217 patent's earliest possible—though not established—priority date).  
 10 This also illustrates Twilio's perceived broad preemptive footprint of the '217 patent, whereby  
 11 Mobile Network Operators stand to be accused of infringement simply by existing, the concern  
 12 undergirding the Supreme Court's Section 101 analysis. The next step [15c] conducts the  
 13 conventional step of selecting a provider to deliver a message. Again, Twilio alleges that this  
 14 encompasses conventional routing activity stemming from the common business practice of having  
 15 "relations with telecommunications providers;" and, Twilio concedes that this step is performed by  
 16 anyone who happens to be a "Mobile Network Operator."<sup>90</sup> It is conventional and lacks an inventive  
 17 concept. The last step recites requesting communication with communication providers. Once  
 18 again, Twilio contends this step occurs simply by virtue of being a "Mobile Network Operator" that  
 19 has relations with telecommunications providers.<sup>91</sup> Twilio purports that it occurs whenever a carrier  
 20 conducts the conventional act of requesting "to establish communications" to complete the send  
 21 request. Again, this is conventional activity and lacks an inventive concept. Even considered "as an  
 22 ordered combination" the claims "add nothing that is not already present when the steps are  
 23 considered separately." Turning to step two, the claims of the '217 patent, including as an ordered  
 24 combination, recite no inventive concept sufficient to ensure that the patent amounts to significantly  
 25 more than a patent upon the abstract idea itself. The claims are directed to a disembodied method of

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26 <sup>90</sup> Compl. at 42:23-26.

27 <sup>91</sup> Compl. at 43:3-6.

1 using conventional and generic computing components to perform the abstract idea of selecting a  
 2 communication provider to transmit messages. For example, the only two arguable pieces of  
 3 hardware are 1) “multi-tenant communication platform,” which can simply be a conventional  
 4 “server”<sup>92</sup> and 2) an “external system,” which is said to include an “application server.”<sup>93</sup> Claim 15  
 5 recites operating in response to the communication response being authenticated, which would be  
 6 akin to inspecting the royal seal of a message purportedly sealed with a ruler’s signet ring. If “YES”  
 7 (it matches), proceed, if “NO,” do not.<sup>94</sup> Operating responsive to authentication is conventional.

8 The next recited step [15b] involves determining a routing address. Twilio admits the  
 9 conventionality of this step by asserting that it covers traditional activity such as when one  
 10 telecommunications carrier uses another to deliver messages.<sup>95</sup> In fact, Twilio alleges that this step  
 11 is performed by virtue of simply being a “Mobile Network Operator,” which have long predated  
 12 2014 (the ’217 patent’s earliest possible—though not established—priority date). This also illustrates  
 13 Twilio’s perceived broad preemptive footprint of the ’217 patent, whereby Mobile Network  
 14 Operators stand to be accused of infringement simply by existing, which is the concern undergirding  
 15 the Supreme Court’s Section 101 analysis.<sup>96</sup> The next step [15c] conducts the conventional step of  
 16 selecting a provider to deliver a message. Again, Twilio alleges that this encompasses conventional  
 17 routing activity stemming from the common business practice of having “relations with  
 18 telecommunications providers;” and, Twilio concedes that this step would be performed by anyone  
 19 who happens to be a “Mobile Network Operator.”<sup>97</sup> It is conventional and lacks an inventive  
 20 concept. The last step [15d] recites requesting communication with communication providers. Once  
 21 again, Twilio contends this step occurs simply by virtue of being a “Mobile Network Operator” that  
 22

23 <sup>92</sup> “The multitenant communication platform 900 . . . is a telephony platform such as the one  
 24 described in patent application Ser. No. 12/417,630,” (16:30-37) which “can be a server” (2:46-67,  
 specifically, line 65).

25 <sup>93</sup> ’217 pat. at FIG. 9, item 921.

26 <sup>94</sup> ’217 pat. at FIG. 10, step S1011.

27 <sup>95</sup> Compl. at 42:14-15.

28 <sup>96</sup> *Alice*, 134 S. Ct. at 2358.

<sup>97</sup> Compl. at 42:23-26.

1 has relations with telecommunications providers.<sup>98</sup> Twilio purports that it occurs whenever a carrier  
 2 conducts the conventional act of requesting “to establish communications” to complete the send  
 3 request. Again, this is conventional activity and lacks an inventive concept.

4 Even considered “as an ordered combination” the claims “add nothing that is not already  
 5 present when the steps are considered separately.”<sup>99</sup> The above analysis presumes an ordered  
 6 combination, which does not yield any unconventional results. Additionally, any arrangement or  
 7 order in the claims is still conventional, because it simply “mirrors the order in which those same  
 8 elements appear in the specification’s description of existing technology.”<sup>100</sup> Claim 15 lacks any  
 9 inventive concept sufficient to distinguish it from the abstract idea to which it is directed.

## 10 **VII. Conclusion**

11 Fatal to all of Twilio’s patents, the claims are not directed to any improved computer and  
 12 even when they recite hardware or software, it is to a generic and conventional use such that each  
 13 claim as a whole is directed to an abstract idea. The patents do not offer a solution “necessarily  
 14 rooted in computer technology in order to overcome a problem specifically arising in the realm of  
 15 computer networks.”<sup>101</sup> Rather, they “merely recite the performance of some business practice  
 16 known from the pre-Internet world” and at best, describe performing it via the Internet. *Id.* Twilio  
 17 admits that its patents are directed to the business practices of controlling messages based on  
 18 requests, detecting fraudulent account activity, and selecting communications providers or routing  
 19 carriers to transmit messages.<sup>102</sup> Because the asserted patents are invalid, TeleSign respectfully  
 20 requests that the Court to grant its motion and dismiss Twilio’s complaint with prejudice.

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 22  
 23 <sup>98</sup> Compl. at 43:3-6.

24 <sup>99</sup> *Alice*, 134 S. Ct. at 2359 (internal quotations removed).

25 <sup>100</sup> *Whitepages, Inc. v. Isaacs*, No. 16-cv-00175, 2016 U.S. Dist. LEXIS 96771, \*20-21 (N.D. Cal.  
 26 July 25, 2016). *See, e.g.*, ’217 pat. at 3:8-12 (“The communication service 110 can comprise of one  
 or more services that establish communication through various channels and over varying protocols  
 of the plurality of routing options 112.”).

27 <sup>101</sup> *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1257 (Fed. Cir. 2014).

28 <sup>102</sup> Compl. at 3:12-27.



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